



THE HONG KONG UNIVERSITY OF SCIENCE & TECHNOLOGY

Department of Mathematics

## PHD STUDENT SEMINAR

### Causality detection with attention mechanism on time series data

By

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#### Abstract

Time series forecasting is widely used in many fields including stock price forecasting, weather prediction, signal data distribution, lossless compression etc. Time series forecasting methods try to use history data and covariates data to predict the future values of the time series. Lossless compression contains two parts: a predictor and an encoder. Attention mechanism such as Transformer can be used to do the prediction part. Adding causality detection may reduce the number of data points considered and thus increase the compression rate without increment of space and running time. In this talk, we will discuss causal and attention and try to combine them on the time series prediction problem.

**Date : 3 May 2021 (Monday)**

**Time : 11:00am**

**Zoom Meeting : <https://hkust.zoom.us/j/97757103798> (Passcode: 726832)**

*All are Welcome!*